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Time: 4:15pm
(Minneapolis, Minn.)

TO: Commissioner for Patents
Attn: Richard A. Booth
Patent Examining Corps
Facsimile Center
Washington, D.C. 20231

FAX NUMBER (703) 872-9319

FROM: Janal M. Kalis

OUR REF: 303.522US1

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*** Please deliver to Examiner Richard A. Booth in Art Unit 2812. ***

Document(s) Transmitted: **A Response Under 1.116 (2 pgs.)**

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In re. Patent Application of: Alan R. Reinberg
Serial No.: 09/382,442
Filed: August 25, 1999
Title: METHOD FOR REDUCING SINGLE BIT DATA LOSS IN A MEMORY CIRCUIT

Examiner: Richard A. Booth
Group Art Unit: 2812
Docket No.: 303.522US1

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By: _____
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EXPEDITED PROCEDURE - EXAMINING GROUP 2812

PATENT

S/N 09/382,442

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Alan R. Reinberg
Examiner: Richard A. Booth
Serial No.: 09/382,442
Group Art Unit: 2812
Filed: August 25, 1999
Docket: 303.522US1
Title: METHOD FOR REDUCING SINGLE BIT DATA LOSS IN A MEMORY CIRCUIT

RESPONSE UNDER 37 C.F.R. § 1.116

Box AF
Commissioner for Patents
Washington, D.C. 20231

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on October 10, 2001, and the references cited therewith.

No claims are amended, no claims are canceled, and no claims are added; as a result, claims 1-14, 26-32 and 35-39 remain pending in this application.

§103 Rejection of the Claims

Claims 1-14, 26-32, and 35-38 were rejected under 35 USC § 103(a) as being unpatentable over Applicant's admitted prior art in view of Lisenker et al. ((WO 94/19829) or Clark et al. (U.S. Patent No. 5,972,765). The Examiner is maintaining rejection by focusing on the Clark reference which mentions that deuterium provides greater resistance to hot electron stresses than hydrogen. The hot electron stresses referred to are those in MOSFET devices, TFT's, polyresistors and polyemitter bipolars. As has been discussed, none of these references describes a use of deuterium for reducing random single bit data loss in a FLASH memory cell.

The significance of this difference is that FLASH memory includes a programming operation and an erase operation. Both the programming operation and the erase operation must operate in a satisfactory manner for the FLASH memory to perform acceptably. None of the MOSFET devices, TFT's, polyresistors or polyemitter bipolars operate with this two step operation. Thus, there is no precedent in the references cited by the Examiner for concluding that deuterium substitution would work at all to reduce random single bit data loss in a memory cell. The observations described in Lisenker et al. patent suggest that deuterium treatment would